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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,096	02/21/2002	Ralf Wolleschensky	GK-ZEI-3156/500343.20157	2875

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REED SMITH, LLP
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599 LEXINGTON AVENUE, 29TH FLOOR
NEW YORK, NY 10022-7650

EXAMINER

GABOR, OTILIA

ART UNIT PAPER NUMBER

2878

DATE MAILED: 02/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/081,096	Applicant(s) WOLLESCHEMSEY ET AL.	
	Examiner Otilia Gabor	Art Unit 2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

1. The amendment filed 12/18/2003 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-25, 28-36, 38-40 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Xiao (U. S. Patent 5537247).

Xiao discloses an arrangement 10 used with a laser scanning wide field microscope 11 for optical detection of fluorescent light emitted by an excited specimen 70, the arrangement comprising:

- means (optical lens, mirror, beam splitter, etc.) 39, 55, 30, 41, 44, 32 for focusing the illumination light 81 from a laser source 20 onto the specimen 70
- an optical objective lens 34 which is displaceable vertical along the optical axis (see Fig.1)
- a system 50 (apparatus) positioned between the detection plane (detector 21, 22, pupil) and the specimen plane 72 provided to spatially separate the illumination light 81 from the detection light (82, 84), (see abstract)
- detector 21, 22 for detecting the fluorescent light coming from the specimen.

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The spatial separator 50 can take the form of an aperture plate with a hole in the middle or as a plate made of a transparent substrate coated on one side 52 with an opaque film to reflect the incident light, and a clear region 51, which is the only part that transmits the incident light. The plate 50 could also take the form of the beam splitter 55 acting as a spatial separator. Either embodiment will serve to spatially separate the illumination and the fluorescent light. Different scanning methods are disclosed, one of which is moving the stage 72 on which the specimen 70 is positioned or moving the objective lens 34 in order to change the focal position 71 of the incident beam and thus varying the length of the scanning line, or using a galvanometer scanner 60 where by changing the orientation of the reflector plates 62 and 63 a two-dimensional scanning is obtained (descanned detection), and by only rotating reflector either plate 62 or 63 scanning in only one direction is obtained (partially descanned detection), or the illumination light does not travel through any scanner but is viewed in the port of the microscope (nondescanned). By changing the position of the device 50 an oblique illumination is obtained whereby some of the scattered radiation is eliminated. With this system a high-resolution three-dimensional imaging of the specimen is obtained (thus depth-resolved detection). Also since the illumination light is focused in one point 71 and not in an expanded beam zone, the illumination is considered structured and the detection is of specific areas in the specimen. See Figs.1, 6.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 26, 27, 37, 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xiao.

Regarding claims 26, 27, 37 Xiao fails to disclose the specific optical elements as claimed with which the scanning is done and the scanning line length is changed, however since he discloses that the optical elements as disclosed can be substituted with any other optics that fulfills the same function and since the claimed elements are well known in the field, it would have been obvious to one of ordinary skill in the art to use the claimed optical elements.

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Regarding claim 41 Xiao fails to use a CCD camera as the detector, however since he does not specify or limit the type of detector to be used in his system and since CCD cameras are well known and used in the art for fluorescence detection it would have been obvious to one of ordinary skill in the art to use a CCD camera for it constitutes only a matter of design choice.

Response to Arguments

7. Applicant's arguments filed 12/18/2003 have been fully considered but they are not persuasive. The argument presented by the Applicant is mainly that the reference Xiao does not include a beam splitter as the apparatus for focusing the radiation that the specimen is irradiated with. However, this argument is not persuasive because, in fact Xiao clearly discloses, in Col.2, lines 14-31, that he uses the aperture system 50 as a spatial filter whereby the light returning from the specimen is separated from the illumination light and that the aperture system 50 can include filters, beam splitters, light stops, etc. to reject, reduce, redirect, etc. light. Therefore, the limitation is indeed met in the claim, and thus the claims still stand rejected as shown in detail above.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Otilia Gabor whose telephone number is 571-272-2435. The examiner can normally be reached on Monday-Friday between 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read 'D. Porta', with a long horizontal stroke extending to the right.

DAVID PORTA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800